

REMARKS/ARGUMENTS

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 4-6, 10-12, 16 and 32-46 are presently pending in this application, Claims 4, 10 and 16 having been amended by the present amendment.

In the outstanding Office Action, Claims 4-6, 10-12, 16 and 32-46 were rejected under 35 U.S.C. §103(a) as being unpatentable over Naruse et al. (U.S. Patent 5,914,187) in view of EP 0 361 883 (hereinafter "EP '883").

Claims 4, 10 and 16 have been amended herein. These amendments find clear support in the specification, claims and drawings as originally filed, for example, the specification, page 24, lines 9-23, as well as page 27, line 18, to page 19, line 3, and no new matter is believed to be added thereby. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive mutually agreeable claim language.

Before addressing the outstanding rejections based on the cited references, a brief review of Claim 4 as currently amended is believed to be helpful. Claim 4 is directed to a honeycomb filter for purifying exhaust gases and recites, *inter alia*, "a plurality of columnar porous ceramic members...; and an adhesive layer combining said columnar porous ceramic members with one another and formed by drying an adhesive paste which forms a plurality of pores adjusting a thermal capacity per unit volume of said adhesive layer such that said thermal capacity per unit volume of said adhesive layer becomes lower than a thermal capacity per unit volume of the porous ceramic members."

By providing such an adhesive layer and/or a coating material layer, the columnar porous ceramic members are bonded by a solidified adhesive paste which is not fired at an extremely high temperature such as 1,100 °C, thereby not sintering or vitrifying to form a

sintered or vitrified body, while effectively lowering the thermal capacity of a honeycomb filter without compromising the mechanical strength of the porous ceramic member. As a result, the adhesive/coating material layer is heated quickly with lesser amount of heat, allowing the porous ceramic member and subsequently the filter to be heated quickly with lesser amount of heat, providing the porous ceramic filter which better withstands a regenerating process of high-temperature, burning of unevenly accumulated particles in the filter and deters cracking in the porous ceramic filter.

It is respectfully submitted that neither Naruse et al. nor EP '883 teaches or suggests "an adhesive layer combining said columnar porous ceramic members with one another and *formed by drying an adhesive paste which forms a plurality of pores adjusting a thermal capacity per unit volume of said adhesive layer such that said thermal capacity per unit volume of said adhesive layer becomes lower than a thermal capacity per unit volume of the porous ceramic members*" as recited in amended Claim 4 (emphasis added in italic).

On the other hand, EP '883 describes that after bonding the matrix segments with a bonding material, a resultant bonded structure is *fully dried and fired* at 1,100 °C to 1,200 °C for 1 to 4 hours.¹ As such, it is respectfully submitted that the bonding material is believed to become a sintered or vitrified body formed by such an extremely high temperature firing process. In other words, the bonding material having components such as SiO₂, Al₂O₃ and Li₂O described in EP '883 undergoes the firing process to form a bonded portion made of a sintered or vitrified body, not an adhesive layer formed simply by drying. Furthermore, Naruse et al. does not mention or suggest an adhesive layer which is formed by drying an adhesive paste capable of forming pores adjusting its thermal capacity per unit volume and lowering it to be less than that of the porous ceramic members. Therefore, it is respectfully submitted that the subject matter recited in Claim 4 is distinguishable from Naruse et al. and

¹ See, for example, EP '883, page 3, line 24-33 and lines 43-50.

EP '833. In addition, because neither Naruse et al. nor EP '833 discloses the adhesive layer as recited in amended Claim 4, their teachings even combined are not believed to render the honeycomb filter of Claim 4.

Likewise, Claims 10 and 16 are believed to include subject matter substantially similar to what is recited in Claim 4 to the extent discussed above. Thus, Claims 10 and 16 are also believed to be distinguishable from Naruse et al. and EP '883.

For the foregoing reasons, Claims 4, 10 and 16 are believed to be allowable. Furthermore, since Claims 5-6, 11-15 and 32-46 depend directly or indirectly from one of Claims 4, 10 and 16, substantially the same arguments set forth above also apply to these dependent claims. Hence, Claims 5-6, 11-15 and 32-46 are believed to be allowable as well.

In view of the amendments and discussions presented above, Applicants respectfully submit that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

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